

Indiana State Department of Toxicology



2015 Annual Report

Pictured on the cover is a forensic scientist preparing a headspace gas chromatograph instrument for an alcohol analysis run. Requests for alcohol analysis account for about 50% of the Department's total requests for testing. Average turnaround time for alcohol analysis requests was reduced from a high of 135 days in 2014 to 28 days by the end of 2015.

Overview

The Indiana State Department of Toxicology (ISDT) provides science-based support to the state's criminal justice system, including impaired and dangerous driving enforcement programs. The Department conducts analyses for alcohol and drugs in blood samples submitted by law enforcement agencies and provides expert testimony. Additional agency responsibilities include training and certifying breath test operators as well as inspecting, maintaining, and certifying breath testing equipment.

ISDT's objective is to provide accurate and timely toxicological services in an ethical and forensically sound manner and an accurate and reliable breath-testing program for the State of Indiana.

We hold that quality results come through professional, ethical, and unbiased analysis of all evidentiary samples entrusted to the laboratory for testing.

The Agency's strategy is to establish a professional work environment that encourages excellence; hire highly qualified individuals that share the values of the Department; provide the appropriate resources to ensure each employee accomplishes the goals and objectives of the Department; develop a training program ensuring each employee is always learning; clearly communicate expectations, goals, and objectives to each member of the agency; and to provide the necessary technical and administrative leadership.

Budget

ISDT's budget is comprised of general fund appropriations, limited fees to support the breath test program, and, when awarded, federal grants. In 2015 the Department was awarded two Edward Byrne Memorial Justice Assistance Grants from the Indiana Criminal Justice Institute in the amounts of \$15,000.00 for overtime and \$120,150.36 for replacement of a 14 year old gas chromatograph. Additionally, the Department received a Federal Transit Administration grant in the amount of \$287,021.27 for technology upgrades to blood alcohol analysis instruments.

Staffing

The Department ended the year with 18 of its 23 positions filled as detailed in Table 1. The agency contracts with the Indiana Office of Technology, the State Budget Agency, and the State Personnel Department for computer support, accounting services, and human resource matters, respectively. The last two pages of this report provide the agency's organizational structure and contact information.

Table 1: Department of Toxicology Staffing as of 12/31/15

Position	Staff	Position	Staff
Director	1	Analytical Lab Supervisor	1
Assistant Director	1	Forensic Scientist	9 (2 vacant)
Toxicologist/QA Manager	1	Evidence Control	2 (1 vacant)
General Counsel	1	Breath Test Supervisor	1 (vacant)
Program Coordinator	1	Breath Test Inspector	4 (1 long term disability)
Administrative Assistant	1		

Training

The field of forensics, including toxicology, is constantly evolving. For this reason, the Department is committed to career-long learning for its employees.

Training attended by ISDT staff during 2015 included Agilent Open Lab CDS Familiarization, Agilent Mass Hunter Familiarization, Agilent 6200 Series TOF LC/MS Techniques & Operation, Agilent QQQ LC/MS Techniques & Operation, General Toxicology Short Course Pinpoint Testing LLC, Certificate Program in Forensic Toxicology, Borkestein Course on Alcohol & Highway Safety, The Chemistry of SPE: Theory, Method Development and Applications, and Legal and Ethics Conference. Staff members who attend outside training share the knowledge gained with other agency staff.

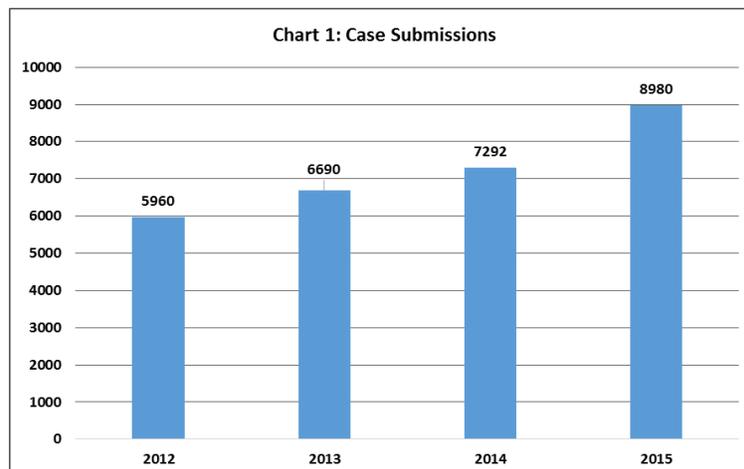
Customers

In 2015 the Department analyzed blood samples submitted by 330 agencies, including coroners, town marshals, municipal and county departments, and state law enforcement agencies. Approximately 9% of the agencies submitting evidence were using Department laboratory services for the first time. Most agencies submit samples for analysis in evidence collection kits provided by the Department. ISDT encourages agencies to return expired kits to the laboratory for refurbishment. Refurbished kits are redistributed to agencies at a savings to ISDT of approximately \$3.25 per kit. The Department's web site (www.IN.gov/isdt) provides information for customers including sample submission protocols and available training. The site averages about 20 visitors a day.

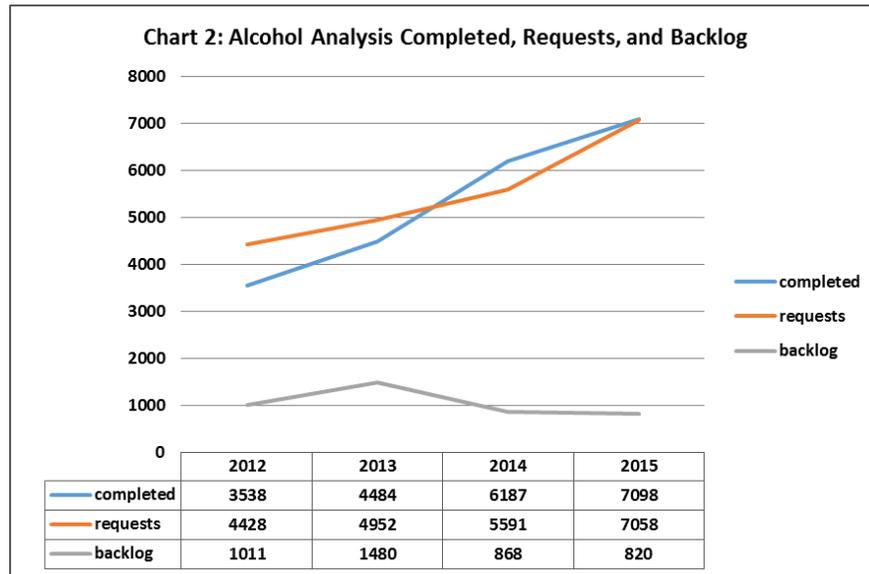
Analysis

ISDT has seen a steady increase in submissions, as shown in Chart 1, since becoming a State agency. The Department received 8,980 new cases in 2015. This is an increase in case submissions of 23% from 2014 and a 51% increase since 2012.

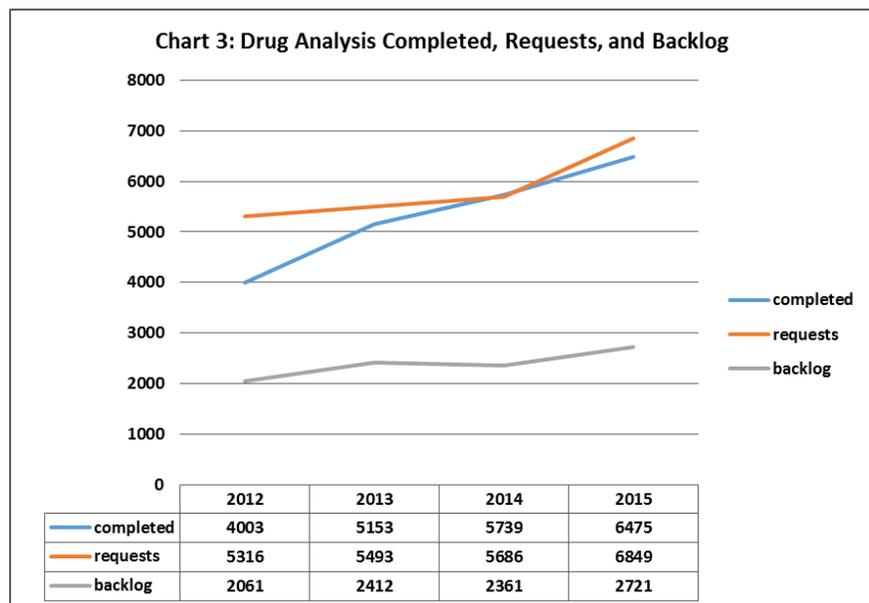
Case submissions can have a request for alcohol analysis, drug analysis, or both. The cases submitted in 2015 equated to of 7,058 requests for alcohol analysis and 6,849 requests for drug analysis. Offenses reported with submission information indicated that 59% of the cases completed by ISDT involved Operating While Intoxicated, 22% Personal Injury Accident, 13% Property Damage Accident, 4% Fatal Accident, and Other submissions accounted for the remaining 2%.



The Department completed 7,098 requests for alcohol analysis in 2015 as show in Chart 2. The number of completions have doubled since 2012 while the backlog dropped to 820 by the end of the year. Annual requests for alcohol analysis have increased by 59% since 2012. The average turnaround time in 2015 for an alcohol requests was 35 days while in 2014 the average turnaround time for an alcohol request was 99 days or an improvement of approximately 65% in 2015.



The Department completed 6,475 requests for drug analysis in 2015 as show in Chart 3. The number of completions have increased by 62% since 2012 but the backlog increased to 2,721 by the end of the year. This increase in backlog was primarily due to the increased number of requests. Annual requests for drug analysis have increased by 59% since 2012. In 2014 the average turnaround time for a drug request was 174 days. The average turnaround time in 2015 for a drug requests was 123 days.

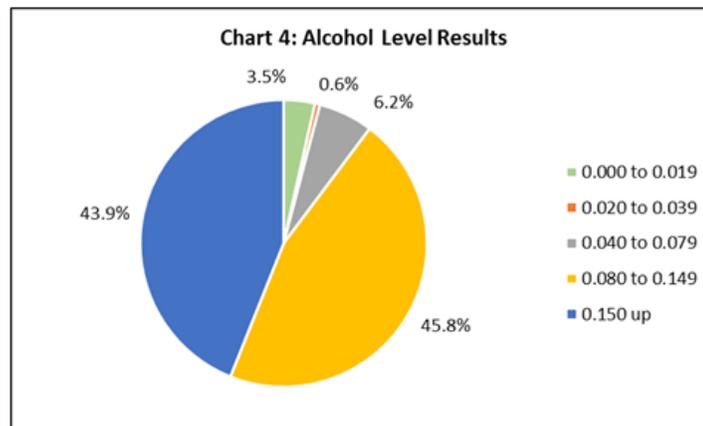


Over 21,000 subject breath tests were conducted in 2015. The distribution of these tests by county are shown in Table 3. The top ten counties conducted approximately half of all the tests. Of the individuals tested 90% carried an Indiana license, 3% Illinois, 2% Kentucky, 1% Michigan, 1% Ohio, 1 % Florida, and the remaining 2% were from 40 different states.

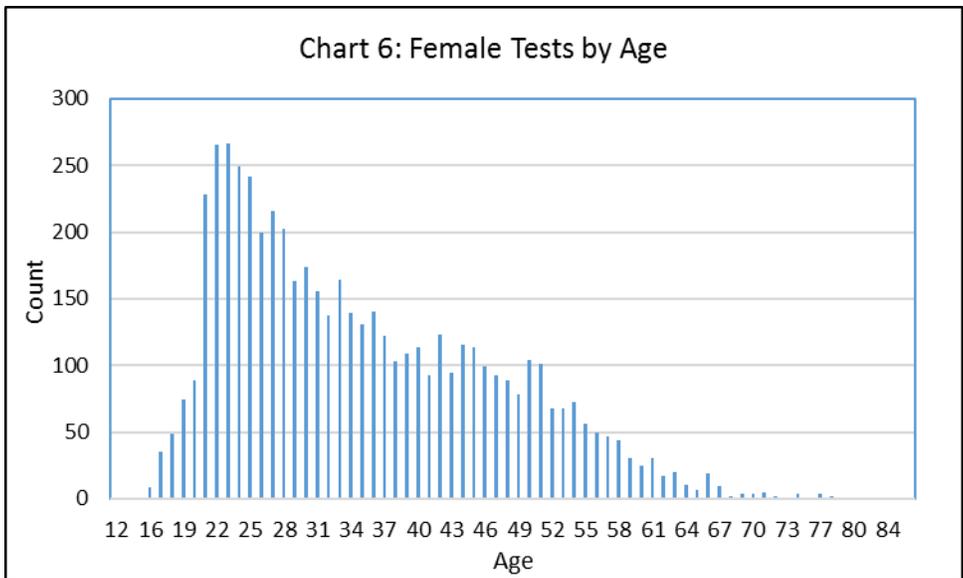
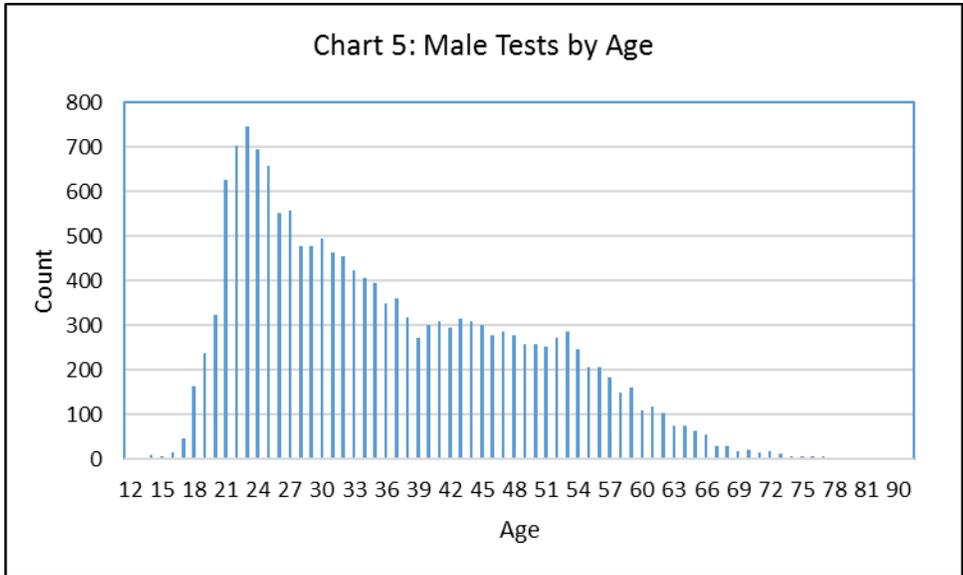
Table 3: County and Number of Subject Tests Conducted

Marion	1,919	DeKalb	243	Adams	107	Parke	65
Lake	1,849	Henry	226	Huntington	107	Brown	62
Allen	1,236	Dearborn	203	Putnam	103	Pike	62
Elkhart	1,114	Miami	193	Tipton	101	Fayette	61
Hamilton	1,065	Steuben	174	Jay	99	Orange	58
Clark	779	Whitley	174	Harrison	98	Sullivan	57
Porter	769	Morgan	171	Jasper	97	Washington	57
Monroe	618	Cass	162	Spencer	91	Newton	55
St. Joseph	585	Warrick	160	Daviess	90	Starke	51
Vanderburgh	569	Clinton	158	Wabash	86	Carroll	50
Tippecanoe	540	Shelby	156	Wayne	85	Scott	49
Madison	491	White	144	Jennings	83	Benton	43
Johnson	445	LaGrange	142	Jefferson	82	Fulton	43
LaPorte	441	Montgomery	142	Posey	82	Martin	40
Hendricks	395	Jackson	141	Franklin	81	Switzerland	39
Delaware	368	Perry	135	Randolph	81	Marshall	37
Howard	337	Knox	121	Clay	80	Warren	36
Bartholomew	308	Dubois	116	Fountain	80	Crawford	33
Floyd	308	Noble	116	Greene	80	Ohio	31
Vigo	272	Boone	114	Gibson	75	Rush	26
Kosciusko	266	Decatur	112	Wells	72	Union	18
Grant	264	Lawrence	110	Ripley	69	Pulaski	17
Hancock	249	Owen	109	Vermillion	66	Blackford	16

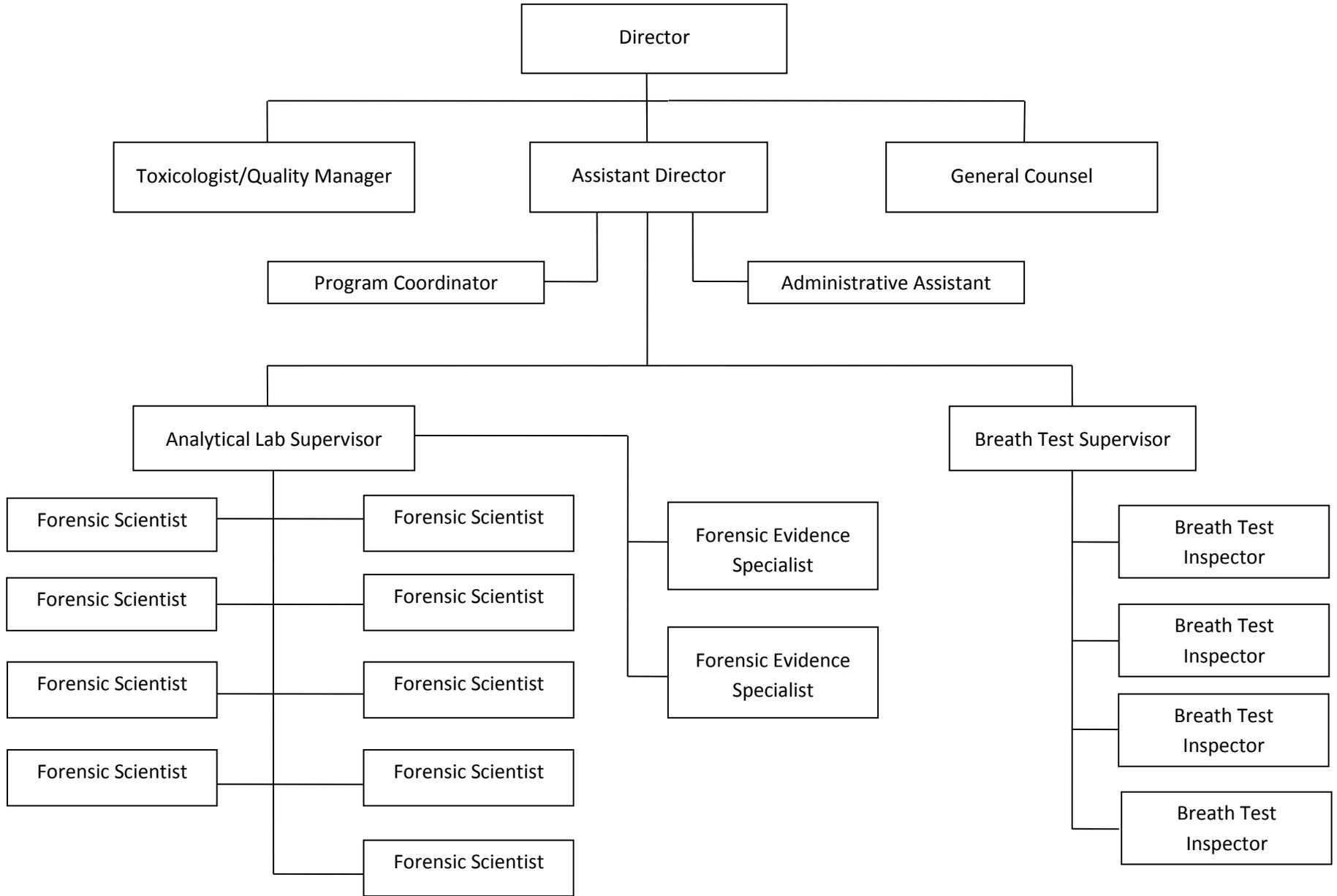
Chart 4 shows the distribution of blood alcohol concentration (g/210L) of the subject tests. Of the individuals tested, 10.3% registered between 0.000 and 0.079, 45.8% between 0.080 and 0.149, and 43.9 % had a value of 0.150 or more. The highest test recorded for the year was 0.411. Test subjects over the commercial license limit of 0.04 but under the 0.08 level constituted 6.2% of the tests.



Of the subject tests conducted about 75% were male and 25% female. Chart 5 and Chart 6 show the age distribution of subject tests for male and female respectively. Approximately 50% of the individuals tested fall in the age range of 18 to 34 for both male and female.



INDIANA STATE DEPARTMENT OF TOXICOLOGY



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